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ABSTRACT

Intended to complement two other summaries about writing across the curriculum at Gallaudet College for deaf students, this report describes the first academic year of the college's writing across the curriculum program (WAC), detailing various instructors' projects and their personal opinions about the program, as well as how the students felt about their projects and how WAC affected their writing and learning. Following an introduction, the report provides a summary of data collection and discusses the principal observations and recommendations. The first major section of the report, "Implementation of Writing across the Curriculum," describes the 1984-1985 WAC courses and faculty sentiments about the project. Specifically, the section notes that faculty members observed both favorable and unfavorable effects in their projects and presents a number of their ideas for improving the preparation, guidance, and support of future faculty who adopt the program. The second major section of the report, "The Impact of WAC on Students," offers student opinions on the project--bolstered by survey results--as well as an extended appraisal of the performance of one student. This section ends with observations and recommendations related to the implementation of the WAC program. The conclusion of the report addresses the particular benefits of writing across the curriculum for deaf students and the potential advantages that a continuation of the program would bring to both students and faculty. (References and appendixes containing a copy of a student questionnaire and samples of student writing are attached.) (NKA)

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THE EVALUATION OF WRITING ACROSS THE CURRICULUM AT GALLAUDET COLLEGE DURING THE 1984-85 ACADEMIC YEAR

BY

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INSTRUCTIONAL DEVELOPMENT
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AUGUST, 1985

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Executive Summary

Focus of the Evaluation: Writing Across the Curriculum

Writing Across the Curriculum (WAC) promotes use of writing as an instructional tool in the academic disciplines; it is sometimes called "writing to learn." WAC instructors require students to complete writing assignments that stimulate certain kinds of thinking processes, depending on the learning objectives of interest. At Gallaudet, these writing experiences are especially desirable because of the English language deficiencies associated with deafness. The meaningful use of the English language in writing assignments increases the likelihood of English language acquisition.

Purpose of the Evaluation.

The purpose of the evaluation was threefold: (1) to describe implementation of WAC principles in Gallaudet courses, (2) to determine whether there was evidence that the writing activities were influencing student content learning and/or writing skill development, and (3) to identify ways to improve the prior training and on-line support of instructors who adopt WAC in the future.

Data Collection:

Each of the seven faculty members who conducted WAC projects was interviewed after the completion of the WAC course. They described the procedures that they followed, identified the strengths and weaknesses of their uses of writing, and defined their primary purposes for using the writing activities. Three of the instructors were interviewed in greater depth. They answered a set of questions about each of their individual students, items that elicited their observations of students' skills, students' reaction to the writing activities, and students' success in completing the writing assignments.

Data collected directly from students included, first, their sentiments toward the writing assignments. By questionnaire, the students from three classes expressed their feelings about the extra writing, reacted to its draw on

their time, and appraised its value to them. Two of the instructors also kept detailed records of student performance on the writing assignments. They evaluated how accurately and completely the students represented the course information in the writing assignments. In addition, they rated the organization and the grammar of each assignment. One of the instructors also kept track of student scores on classroom test items that had been supported by writing activities. These group data were complemented by detailed analyses of the exposition, grammatical correctness, and evidence of learning in the writing of a single student from one of the WAC classes.

Principal Results and Recommendations

While the seven instructors implemented WAC activities to some degree, they were bothered by certain aspects of the experience. Instructors paid excessive attention to students' initial writing skills, expecially their English grammar performance. Partly because those skills are so resistant to change and because effects on content learning were not systematically measured, some instructors were uncertain that their additional efforts were effective. It is thus recommended that future orientations of WAC faculty encourage them to focus on enhancements of content learning rather scrutiny of grammatical and expository competence. Training in methods of testing objectives supported by writing activities may promote a focus on content learning.

Student questionnaire responses indicated that though they were challenged by the additional writing, they found the experience helpful to their literacy skills and their understanding of course content. Ratings and analyses of student writing and test performance provided some evidence that the writing activities were promoting the desired effects. It is therefore recommended that the promotion of WAC be continued especially since a series of four courses in English constitutes the only other systematic effort to improve Gallaudet student literacy.

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PREFACE

This report about Writing Across the Curriculum complements two others. The first of the two was written at the conclusion of last summer by Jan Richardson to describe the activities of the 1984 W.A.C. workshop. She presented the project plans of the seven faculty participants, discussed the strengths and weaknesses of the workshop, just then completed, and suggested improvements in procedures for the following summer. That report, entitled "Writing Across the Curriculum: Interim Report, Summer 1984" is necessary reading for those wishing a full understanding of the first year of Writing Across the Curriculum at Gallaudet.

The second report mentioned has not yet been written. It will be prepared by the W.A.C. Planning Group at some future date. Analogous to Jan's report, it will describe the events of the 1985 W.A.C. workshop. The evaluation data collected on the 1985 workshop were considerably more detailed than those collected in 1984. So, there is ample reason to anticipate a full record of the proceedings, the participants' reactions to them, and ideas for improvements of the program.

Identifying ideas for improvements is the primary purpose of the present report as well. But it is important to note that many of the ideas contained here, although reported formally only now, emerged during the school year and thus partly guided the planning and conduct of the 1985 workshop.

The present report does not necesarily represent the views of the entire W.A.C. Planning Group. Several members of that group have written reactions to the report and they will be included in the W.A.C. Planning Group's future report.

INTRODUCTION

Beginning in September, 1984, a group of seven Gallaudet instructors began to use writing in their courses as part of the implementation of Writing Across the Curriculum (W.A.C.). The W.A.C. literature encourages accelerated use of writing primarily to help course content learning, but there were strong theoretical reasons to believe that student experiences in W.A.C. courses would also enhance literacy. It seemed, therefore, that W.A.C. would support Curriculum Goal 2, which advocates class activities to foster the reading and writing skills of Gallaudet students. Thus, after a month of training and project planning in the summer of 1984, this first group of W.A.C. instructors began their projects. The expense and potential of the program justified a comparable effort to monitor its impact on instructors and students.

This report describes the first academic year of W.A.C. It reports what the instructors did in their projects and how they felt while doing it. The report also tells how students felt about the projects and how W.A.C. seemed to affect their writing and learning. Recommendations are provided herein to guide administrators and other planners responsible for making decisions about W.A.C. policy and practice. W.A.C. instructors, both current and prospective, may also find the report informative.

The first major section of the report, "Implementation of W.A.C.", explains that faculty members observed both favorable and unfavorable effects in their projects. The negative elements seemed to be the annoyance and frustration that they experienced personally: additional draws on their time and uncertainty of whether their efforts were making a difference, especially with those students

who were the most unskilled writers. It is likely that some of their difficulties were the result of the developing nature of the training program that had prepared them. Although they had difficulty, the W.A.C. faculty's observations have provided a number of ideas for improving the preparation, guidance, and support of future faculty who adopt Writing Across the Curriculum.

The second major section is called the Impact of W.A.C. on Students, and it presents some favorable results. In courses where data were systematically collected, students expressed positive feelings about their experiences, and, by the end of the semester, some appeared to be writing better. The writing activities also appeared to be having a favorable influence on their understanding of course content. These results do not predict that W.A.C. activities will work in every classroom. Like all of the instruction offered at Gallaudet, the effectiveness of W.A.C. depends largely on the instructors and how they adapt writing to their courses. But, coupled with the substantive theories of how people became literate (Krashen, 1984; Smith, 1984) and research on how writing can help learning (Newell, 1984; Shanklin, 1981), these outcomes indicate that W.A.C. holds promise. It seems to be worth our further efforts to refine and to structure its management, to train and support the instructors who adopt it, and, to identify which students can (and perhaps can't) be served by its methods. This is especially true because, aside from English courses, there seem to be few other programs specifically designed to help Gallaudet students achieve a desirable level of literacy before they graduate.

The following report is not short, but it has been organized so that reading time can be shortened. The section following the Introduction gives a brief but

complete description of the data gathering methods of the evaluation. This is background necessary for understanding the next section, which presents the principal findings of the evaluation and related recommendations for future practice. This section is the heart of the report.

If more information is desired, the body of the report appears next, divided into the two parts mentioned earlier. The "Implementation of W.A.C." provides a brief description of each of the seven projects, and discusses the instructors' perceptions of how the W.A.C. experience affected them and their students. This section is concluded by the principal observations and recommendations related to implementation.

The "Impact of W.A.C. on Students" section treats the topic in three parts. The first presents the sentiments of students enrolled in three W.A.C. courses. The second part examines student performance on the writing assignments that they completed. It looks at whether they seemed to improve their grammar and/or exposition. Third, the "Impact" section explores evidence that the writing activities may have fostered learning of course information. In the latter two parts of the "Impact" portion instructors' ratings of the writing done by a group of students have been combined with a detailed analysis of one student's written work. The "Impact on Students" part of the report also concludes with principal observations and recommendations. A brief section concluding the entire report then follows.

The design of Writing Across the Curriculum is not yet firmly established. Refinements in classroom methods are still needed so that students' learning can be better served by the program. Strategies are also required for reducing the

faculty's burden and discouragement, while preserving their effectiveness in using writing. Because this report is a response to these needs for information, it is an application of formative evaluation: evaluation to help programs in the process of development. The report has been guided by Stufflebeam's principle that the central purpose of evaluation in education is not to prove but to improve.

SUMMARY OF DATA COLLECTION

Knowledge of the evaluation procedures will be of assistance in understanding the observations and recommendations in the following section of the report. Each of the seven faculty members who conducted W.A.C. projects was interviewed after the completion of the W.A.C. course. They described the procedures that they followed, identified the strengths and weaknesses of their use of writing, and defined their primary purposes for using the writing activities. Three of the instructors, Dr. Lloyd, Mr. Minter, and Mr. Olson, were interviewed in greater depth. They answered a set of questions about each of their individual students, items that elicited their observations of students' skills, students' reaction to the writing activities, and students' success in completing the writing assignments.

Data collected directly from students included, first, their sentiments toward the writing assignments. By questionnaire, the students from Dr. Lloyd's, Mr. Minter's, and Mr. Olson's W.A.C. classes expressed their feelings about the extra writing, reacted to its draw on their time, and appraised its value to them. Two of the instructors also kept detailed records of student performance on the writing assignments. They evaluated how accurately and completely the students

represented the course information in the writing assignments. In addition, they rated the organization and the grammar of each assignment. One of the instructors also kept track of student scores on classroom test items that had been supported by writing activities. These group data were complemented by detailed analysis of the exposition, grammatical correctness, and evidence of learning in the writing of a single student from Mr. Olson's class.

PRINCIPAL OBSERVATIONS AND RECOMMENDATIONS

This section of the report presents the principal findings related to the two components of the evaluation. Observations and Recommendations related to Implementation are presented first, followed by those related to the Impact of W.A.C. on Students. More detailed versions of both sets of observations and recommendtions appear at the conclusion of their respective parts of the report. The short suggestions that follow are offered as guidance to those responsible for setting policy and developing practice related to W.A.C. at Gallaudet.

Principal Observations and Recommendation Related to Implementation

Observation #1: Instructors paid excessive attention to students' initial writing skills, especially their English grammar skills, and the apparent resistance of those skills to instruction seemed discouraging to some faculty members.

Recommendation #1a: The W.A.C. program should strengthen its emphasis of "writing to learn" so that instructors use writing in the way that will be more encouraging to them, while it is helping their students.

Recommendation #1b: The W.A.C. program should clarify how it serves Curriculum Goal 2, which emphasizes the importance of reading and writing skills.

Instructors should understand that their use of writing to promote course learning can also lead to better writing skills, even without their explicit emphasis of skills.

Recommendation #1c: When instructors have a strong desire to focus explicitly on writing skills as well as content learning, they should be advised to confine such assistance to expository skills, avoiding explicit grammar instruction. They should also be warned of the additional effort and expertise needed to guide and monitor development of expository skills.

Observation #2: Instructor frustration became acute when student writing performance dominated the course grade.

Recommendation #2: Instructors should stress to students the importance of the writing assignments but avoid placing disproportionate stress on writing performance as a determinant of the student's grade in the course. If the writing does contribute to the course grade, students should be allowed to earn points through revision. Without the opportunity to make revisions, student risk-taking will be squelched and the writing process will be diluted as a force for exploring and refining knowledge.

Observation #3: A number of instructors were bothered by an uncertainty regarding whether the writing activities had helped course learning.

Recommendation #3: Instructors should use some evaluation technique such as classroom test questions that specifically measure learning of the objectives or information that is supported by the writing activities. This could be a boost to the instructors' morale as well as an aid to appraising the success of the W.A.C. program.

Observation #4: Several instructors found that their students' had initial difficulty completing the writing tasks that were assigned.

Recommendation #4a: Instructors should be ready to guide students' completion of the early assignments, teaching them how to do the assignments initially, perhaps using examples of successful work by other students.

Recommendation #4b: Instructors should anticipate the need to partition their writing assignments into manageable segments so that the instructor can more frequently monitor and guide progress toward the learning goal.

Recommendation #4c: Recognizing the differences in reading and writing skills among Gallaudet students, the W.A.C. program should begin to identify student background variables (like English Language Program test scores, English grades, and Degrees of Reading Power scores) that will help instructors to better appraise the range of writing tasks that they might attempt (and avoid) with their students.

Observation #5: Instructors felt that the use of writing intruded on their personal schedules. One instructor reported spending an additional four and one-half hours each week on writing related tasks.

Recommendation #5: If instructor endurance in the W.A.C. movement is to be preserved, it may be necessary to reduce faculty inconvenience by encouraging their selective use of writing assignments, adjusting teaching loads, paying instructors for the additional work, or providing a cadre of skilled readers (and writers) to help in the processing of student papers.

Principal Observations and Recommendations related to W.A.C. Impact on Students

Observation: #1: Students felt that the writing activities had helped them to learn course information as well as to improve their writing skills. Even

though they felt that the writing assignments had encroached on their study time somewhat, the students expressed very favorable feelings about the need for writing skills. They perceived the additional work as valuable.

Recommendation #1a: Instructors should use writing activities without necessarily feeling that students' limited writing skills are reflections of either an unwillingness to write or a pessimism regarding their potential to improve their skills.

Recommendation #1b: The data suggest, however, that instructors should use discretion regarding the amount of writing that they assign. In addition, the results imply the prudence of encouraging and managing student writing within courses that award credit.

Observation #2: Inspection of student writing performance indicated that students can make improvements in the way that they complete certain writing assignments. Grammar performance also improved to some degree but such changes were small and very laborious to document.

Recommendation #2a: It seems to be an effective practice to give students the opportunity to draft and revise writing assignments that contribute to their mastery of important course objectives.

Recommendation #2b: Instructor monitoring and documentation of changes in writing skills should be undertaken only with special training and with the knowledge that the process is very time consuming.

Observation #3: The students in Mr. Olson's class seem to have enhanced their understanding of the course content through their writing assignments. Although the miscue analysis of one student's written work contributed

substantially to this observation, similar conclusions can be drawn from inspection of routine classroom examinations.

Recommendation #3: Instructors should use writing to support key course objectives, those that are central to the purpose of the course.

IMPLEMENTATION OF WRITING ACROSS THE CURRICULUM

Descriptions of the 1984-85 Gallaudet W.A.C. Courses

The section that follows provides brief descriptions of the seven W.A.C. projects implemented during academic year 1984-85. The instructors are listed alphabetically. In addition to discussing the writing activities, each section explains the instructors' primary purposes for using writing in the course as expressed in interviews at the conclusion of the course.

Mr. Robert Bailey, Department of Business Administration

Description of the Writing. Mr. Bailey had originally intended to use writing in the course, Intermediate Accounting 311, by requiring students to write summaries of articles and make entries in a journal in which they would conduct a "dialogue" with Mr. Bailey. Mr. Bailey quickly decided, however, that the writing assignments would be more compatible with his Management course, a class for students who were juniors and seniors. In that course, Mr. Bailey used summaries of articles as his primary writing method. Students wrote approximately six summaries of journal articles related to the textbook chapters that were the focus of study in the course. The students selected the articles personally from a list supplied by the instructor. Mr. Bailey required a term paper at the end of the semester and his exams included essay format questions.

Purpose for Using Writing. Mr. Bailey was emphatic that he was using writing in his course for the purpose of improving writing skills. In his previous years of teaching he had become aware of student vocabulary limitations, their use of non-standard language, and their failure to use an acceptable format of exposition. According to him some students used an introduction and conclusion but no body in their papers; others wrote a body but provided no introduction. Therefore, Mr. Bailey set out to use writing to augment vocabulary, reduce errors, and encourage appropriate format. Mr. Bailey's secondary purpose for using writing was to facilitate in-depth knowledge of the subject matter.

Dr. John Christiansen, Sociology Department

Description of the Writing. Dr. Christiansen used a number of different writing methods in his introductory sociology course, which was intended primarily for freshman. The "Sociological Diary", a form of journal writing, was his primary technique. Students were directed to make journal entries in which they applied general sociology textbook concepts to everyday events that they encountered personally or read about in the newspaper. For example, if racism or sexism were textbook topics, the students might write in their journals about a current instance of discrimination. Students were free to select their own concepts to discuss, provided that they were treated in the textbook. Dr. Christiansen would collect the journals each Monday and comment on the students' written entries.

Research papers were assigned to give the students opportunities to explore sociological phenomena that were not discussed in-depth in the textbook. Dr. Christiansen commented on first drafts of the research paper three weeks prior to the students' submission of the final paper. He also required sub-

mission of a preliminary outline and list of references as well as completion of the Library Skills series. In other applications of writing, Dr. Christiansen included essay format questions on his examinations. On occasion, he also directed students to write reactions to video tapes viewed in class. This was meant to prepare students for subsequent class discussions of the video tape.

Purpose for Using Writing. Dr. Christiansen stressed that his purpose for using writing was to improve understanding of course concepts.

Mr. John Kubis, Mathematics Department

Description of the Writing. Mr. Kubis set out to test the effect of writing on content learning. He proposed to use different amounts of writing in each of two sections of a computer literacy course. In the "writing" section, the students were to have documented (explained in writing) their computer programming homework "to a greater extent" than the students in the "control" section. Mr. Kubis observed from the beginning of the course, however, that many of his writing students refused to document their computer programs. These students had the worst English skills, according to Mr. Kubis, and they tended to be the worst programmers in the course. As a result, the group of students who could have benefitted the most from this component of the writing experience, actually did not receive the "treatment" that Mr. Kubis had originally proposed.

As another component of this project, the writing students were required to write a letter to Mr. Kubis every two weeks (using computer mail) to "...give [him] their impressions of the course and things like that." Mr. Kubis responded to each student letter. In the writing group, Mr. Kubis also routinely added several essay questions to each test, while the controls had no essay

format questions. Finally, a term paper was required at the end of the semester, but this was required of both sections of the course.

Purpose for Using Writing. Mr. Kubis expressed a strong interest in improving student reading and writing skills. He aspired to reduce students' fear of writing by giving them more opportunities to write. Mr. Kubis did not, however, expect to see appreciable changes in writing skill by the end of the semester. Neither did he expect the writing to enhance students' learning of the course content.

Dr. Eveline Lloyd, Biology Department

Description of the Writing. Last summer, Dr. Lloyd composed study guide questions for each chapter that she would cover in her Genetics course for seven junior and senior level Biology majors. The questions addressed the course learning objectives that Dr. Lloyd considered most important. During the first semester, students wrote answers to the questions after reading the textbook and submitted them to Dr. Lloyd. She in turn evaluated the responses for completeness and accuracy of content as well as correctness of expression and then returned them to the students with suggestions for revisions. Students could improve their grades for each set of questions by following Dr. Lloyd's suggestions for revisions and then resubmitting their papers.

While apparently unified as one technique, Dr. Lloyd's questions actually constituted several kinds of writing assignments. Some questions required identification of explicit facts in the readings, while others required comparisons between two concepts. She varied the writing assignments according to the information emphases of each chapter. She was selective in her use of writing also

because, although she composed and distributed questions for every chapter studied, she required that students write responses to only half of the sets of questions. Students, thus, had access to all of the questions, but Dr. Lloyd's additional labor was reduced by half.

Purpose for Using Writing. Dr. Lloyd used the questions to guide students' selective reading of the textbook and to support the important content objectives of the course. Although correctness of expression was initially included as a criterion for evaluating the students' writing, Dr. Lloyd focused most of her comments to students on the substance (vs. form) of their responses.

Mr. Martin Minter, Department of Physical Education

Description of the Writing. Mr. Minter used writing in the four credit course, History and Philosophy of Parks and Recreation, which included ten students who were in either sophomore, junior, or senior year. He required students to write summaries of seven articles that presented the philosophies of leaders in the field of recreation. The summaries were evaluated according to four criteria: ideas, clarity, organization, and mechanics; Mr. Minter had given the students explicit instructions on how to meet these criteria. Students did not have the opportunity to revise and then resubmit their summaries. They were, however, encouraged to discuss them with the instructor as a way to improve performance on later summaries. The seven summary assignments culminated in a philosophy paper, in which each student drew on the seven articles, their text book readings, and class discussions to formulate a personal philosophy of recreation. Completion of this paper included a draft phase in which an early version of the paper was evaluated by Mr. Minter and returned with suggestions for improvements prior to the final submission.

Purpose for Using Writing. Mr. Minter used the writing assignments to help students formulate a personal philosophy of recreation. He also placed great stock in improving students' writing skills to the point that they could avoid embarrassment when required to write in professional settings.

Mr. Russell Olson, Department of Government

Description of the Writing. Mr. Olson used writing in the course, "Presidential Election 1984." This class had nine students, mostly juniors and seniors majoring or minoring in Government. Students wrote summaries of two newspaper articles each week, tracing in that way a teacher-identified campaign theme from September on through the election in November. Each summary was evaluated for its content, organization, and mechanics and then returned to the students for revisions. Approximately 25 percent of the student's grade for a summary was based on the use of the instructor's revision suggestions. Concluding the weeks of summary writing was a term paper in which each student recounted the essential facts related to his/her campaign theme and appraised their influence on the outcome of the Presidential election.

Purpose for Using Writing. Mr. Olson wanted each student to develop a unique expertise relative to one aspect of the 1984 presidential campaign. He felt also that writing summaries would foster better class discussion. He included questions on his tests to measure directly the students' understanding of the information related to their election topics. Mr. Olson also expressed a strong interest in promoting improvements in student writing skills, both reductions in grammatical errors and enhancements in expository skills.

Dr. Kaye Oman, Department of Home Economics

Description of the Writing. Dr. Oman's students, eight seniors majoring in Home Economics, wrote bi-weekly summaries of articles that were related to the textbook chapters being studied in this one-credit seminar. The summaries were brought to class, distributed among the group, and then discussed. Dr. Oman kept the summaries at the conclusion of each class, evaluated them, wrote comments, and later returned them to the students. Dr. Oman's final exam also placed a heavy emphasis on writing; all of the questions were in essay format.

Purpose for Using Writing. Dr. Oman wanted the students "...to develop expertise in writing for personal and professional applications." She wanted them to write more clearly as a result of their experience in her course, in a way that "looks like the writing of a college graduate." She also hoped to demonstrate to her students the importance of clear writing.

Summary of the Writing Activities for all Projects

Four of the faculty members used the summary as their primary writing method. One instructor used journals, one used study guide questions, and one set out to require documentation of computer programs. All but one required writing on either a weekly or bi-weekly basis; for the most part the instructors were faithful to a single writing method and used it repeatedly throughout the semester. A late semester paper was also required by four of the instructors. Finally, four of the instructors allowed students the opportunity to revise their first drafts: two encouraged revision of the main regular writing assignments, and two required a draft version of the term paper.

Regarding their purposes for using writing, three of the instructors stressed the primary goal of developing writing skills. Two instructors wanted to exploit writing to promote content learning but also expressed hopes that writing skills would be enhanced. Two of the instructors were using writing almost exclusively to promote content learning. With the exception of one instructor's project, it appeared that the students were completing the requested writing assignments. Whether the instructors considered the work to have been completed adequately, however, is an issue discussed in the next section of this report.

Instructors' Sentiments Toward Their Projects

All of the instructors said in interviews that the writing projects had encroached noticably on their personal schedules. Most of this time was spent reading and responding to student writing, a task which for some was just plain difficult. According to one instructor, "the hardest part was finding some way of saying that the mechanics [of grammar] haven't improved very much. 'I've told you about this [error] 11 times'." Another instructor said, "I literally had to interpret [the writing] to judge if the student knew something." Although this was at least irritating to some if not all of the W.A.C. teachers, the actual time per week reportedly devoted to W.A.C. activities ranged from one-half hour every two weeks for one instructor to four and one-half hours weekly for another. Because time was consumed reading and commenting on student compositions, there was less time for reflection and planning during the semester itself. For this reason, one instructor stressed the value of writing a prior plan for using W.A.C. He said that the guidance provided by his plan, written the preceding summer, increased his effectiveness and reduced his mental burden.

The severity of the burden imposed by student writing seemed linked to perceptions of the effectiveness of the writing assignments. Some of the instructors found plenty in their students' writing to provoke despair. According to one, "There would be times I would be there reading [their papers] and would have to stop and leave the room." Another instructor, displaying the writing of one student during his interview, noted her ungrammatical English and less-then-perfect discourse and commented that "she could write forever but it wouldn't do any good without a fundamental change in her thinking. Unless W.A.C. takes this into account, I don't know [what good it will do]." Although this instructor was using writing to improve course learning, he was uncertain of whether it had really helped. (But, like almost all of the other instructors, his project included no provisions for explicitly testing student knowledge of material that had been supported by writing activities.)

A third instructor's frustration was far more acute. The flaws in the students' writing "prov[ed] to me that I was not teaching college level students." The writing directly confirmed this instructor's latent fears of student weaknesses. The compositions reflected reading weaknesses as well. There didn't seem to be anything that could be done and this instructor felt depressed throughout the semester. Another said that students whose writing skills are low initially won't benefit from W.A.C.

Several instructors observed that sometimes their students did not complete the writing assignments according to specifications. One instructor asked for a paper that would integrate the students' personal beliefs with the opinions of published experts; the instructor reported that the hoped-for union never occurred. Another instructor wanted general textbook concepts applied to every-

day situations. He found that the students either wrote about the general concept or described a concrete situation but often did not combine the two. Only after he showed the class examples of successful concept applications by other students did they begin to complete the assigned task and, even then, the quality of performance seemed to fluctuate from week to week.

Discouragement over the writing assignments was most severe for one instructor who had made the writing assignments predominant in deciding each student's grade for the course. As a result, instead of providing a vehicle for stimulating and refining students' thinking related to course concepts, the writing became more of an evaluation device. And, to the instructor's dismay, each botched assignment constituted another black mark, because there were no opportunities for students to improve their scores through revisions. It was only through "liberal grading of the final exam" that most of the students managed to pass the course. Because of these experiences this instructor strenuously warns others against giving the writing assignments such a significant weight in the grading system. There was also caution to avoid heavy reliance on reading skills. According to this instructor, students might not always be able to read what they are expected to write about.

Several instructors were sensitive to the frustration that the writing assignments caused their students. One instructor observed that the students were painfully aware of their limitations; one of the students had to struggle to suppress tears in many of the classes that focused on the written work. Another instructor came to realize how painful it is for students to get papers back, day after day, with the same mistakes identified. The instructor concluded that, whatever anguish the papers caused him personally, they were far greater

sources of concern for the students who wrote them. According to him, students are keenly aware of their inadequacies.

The preceding sentiments were corroborated in part by more methodical interviews of three instructors, who answered a single set of questions about each of their individual students. The total number of students in the W.A.C. courses taught by Dr. Lloyd, Mr. Minter, and Mr. Olson was 26. The three instructors responded by expressing agreement or disagreement with statements about each student. The combined responses of the three instructors appear in Table 1.

TABLE 1

THREE W.A.C. TEACHERS' OBSERVATIONS
OF THEIR INDIVIDUAL STUDENTS:
INTERVIEW RESPONSES, FEBRUARY-MARCH, 1985

Number (and Percentage) of
Students Eliciting Each Response

	Response Choices						
Interview Items	Strongly Agree	Agree	Mildly Agree	No Basis For Judgment	Mildly Disagree	Disagree	Strongly Disagree
1. Didn't have the skills necessary for completing these kinds of assignments	3 (12%)	8 (31%)	4 (15%)	0	2 (8%)	8 (31%)	1 (4%)
2. Demonstrated weaknesses I would have been unaware of without the writing assignments.	4 (15%)	8 (31%)	3 (12%)	2 (8%)	0	8 (31%)	1 (4%)
3. Demonstrated strengths through the writing that I would have been unaware of.	3 (12%)	9 (35%)	1 (4%)	2 (8%)	2 (8%)	9 (35%)	0
4. Needed help with the writing assignments that I didn't know how to give.	6 (23%)	7 (27%)	2 (8%)	3 (12%)	0	8 (31%)	0
5. Needed help that I didn't have the time to give.	3 (12%)	9 (35%)	4 (15%)	0	1 (4%)	9 (35%)	0
6. Needed the kind of help with writing that I don't enjoy giving.	3 (12%)	5 (19%)	7 (27%)	4 (15%)	0	7 (27%)	0
7. Performed at an acceptable level on the writing assignments.	6 (23%)	5 (19%)	8 (31%)	1 (4%)	2 (8%)	4 (15%)	0
8. Seemed to value the writing assignments.	5 (19%)	9 (35%)	5 (19%)	1 (4%)	3 (12%)	3 (12%)	0

Item 1 of Table 1 shows strong instructor agreement that three (12%) of the 26 students did not have the skills necessary for completing the W.A.C. writing

assignments. All together, 15 (58%) of the students were judged to be missing these necessary skills to some extent. These observations of initial deficiencies in student skills are restated in Items 4, 5, and 6. In the responses to each of these three items, more than half of the students were judged as needing help that the instructors had neither the skill, nor time, nor desire to give. When asked to elaborate on the kind of skills that students needed help with, almost always the three instructors cited English grammar. Students' writing skill limitations, especially their grammar problems, had obviously drawn the attention of the W.A.C. instructors.

Table 1 shows also, however, that there were several favorable perceptions by the three W.A.C. faculty members who participated in the detailed interviews. Item 8 shows that 19 (73%) of the students were judged to have valued the writing assignments. As Items 2 and 3 indicate, fifty-one percent of the students showed strengths through the writing that the instructors would have been unaware of and 58% showed weaknesses that would have remained hidden without the writing. In other words, faculty members became more sensitive to the level of their students' competence due to the availability of their writing. Finally, Item 7 indicates that only 23% of the students in these three classes did not perform at an acceptable level on the writing assignments. Put another way, more than 70% performed adequately even though 58% were judged to be missing skills necessary for adequate performance. Observations of non-standard English may have lowered the instructors' expectations somewhat.

The three instructors (Lloyd, Minter, and Olson) also volunteered a number of benefits to the writing assignments that occurred to them while they responded to the prepared interview questions. They are as follows:

Lloyd: The writing assignments...

... reinforced information that the students needed.

... gave students an idea of what exams would be like.

... allowed students to evaluate themselves before exams.

... alerted sudents to the value of written communication.

Minter: The writing assignments...

... increased familiarity with the assigned articles.

... enhanced preparation for class discussions.

... clarified feelings about recreation as a potential career

... made students more accepting of other teachers' writing assignments.

Olson: The writing assignments...

... versed students in an area of the Presidential campaign.

... emphasized the relevance of the text book.

... allowed students to function more confidently in class discussions.

... acquainted students with the newspaper; they learned how to read it more effectively.

... helped them write better summaries.

... showed writing as a process instead of a "one shot" event.

... prepared them to write a longer paper on their campaign themes.

... allowed them to succeed on a manageable writing task.

Principal Observations and Recommendations Related to Instructors' Sentiments

The immediately preceding comments indicate that W.A.C. is producing some favorable perceptions among instructors who are applying writing. This acceptance is certainly guarded, however, because a number of faculty members reported undesirable draws on their time, felt obliged to work in an area where

they sensed a personal lack of skill, and experienced a measure of discouragement at not seeing appreciable changes in their students' performance. W.A.C. takes their time, makes them do unfamiliar tasks, and stimulates results that hint at failure. These reservations, while hardly good news, constitute opportunities to improve the lot of future faculty members who use writing in a course. Concluding the first part of this report are a series of observations related to the problems of this initial group of W.A.C. instructors. Each observation is accompanied by a recommendation for future practice. Recall that a briefer version of these observations and recommendations appears in an earlier part of the report.

Observation #1: Instructors may have paid excessive attention to student writing skills. The deficient state of students' initial writing skills, especially their English grammar skills, and the apparent resistance of those skills to instruction seemed at the heart of some instructors' disappointments. In spite of the W.A.C. emphasis on "writing to learn" [course content] instead of "learning to write" [skillfully] many of the W.A.C. instructors paid a great deal of attention to the writing skills of their students. Three of the seven faculty participants stressed improvements in writing skills - and not content learning - as their main priority. Two others expressed a strong emphasis on skills improvements. One of the seven instructors made a very revealing comment regarding concern for skills while discussing one student, who had not completed all of the assigned writing tasks by the end of the course. The instructor was not particularly alarmed by the student's incompleteness because "...her writing skills were already good enough." But in fact, that same student was consistently among the lowest scorers on the tests administered in the

course, indicating that she apparently had not done sufficient writing to learn course content adequately. This comment also reflects the risk of instructors being temporarily lulled by good writing skills even when learning of course content is deficient.

Interviews of three W.A.C. instructors indicated that when they focused on writing skills, they were often confronted with student weaknesses that they had neither the time nor skill to correct. Their attention was then drawn toward unappealing features of student writing, and energy was diverted from areas related to course content that might have benefitted from instructor strengths. Moreover, when skill improvement was an instructional emphasis, the instructor took on the obligation to provide students with ample practice and with appropriate feedback. Several W.A.C. instructors, focusing on their students' writing skills, strove to provide as much writing as possible. They thus increased the burden on themselves and heightened the risk of burn-out.

One obvious reason for the focus on English skills was the actual state of many of the students' writings, which were often sheathed in a veneer of non-standard English. Such errors draw attention to the form of writing instead of its substance. The mistakes are immediately obvious to native speakers of English, and for readers trying to get meaning from such prose, these errors stimulate either confusion, misunderstanding, or irritation. The instructors' vulnerability to the discouraging influence of the students' flawed English is understandable.

Instructors' concerns for English skills during their W.A.C. project might also be attributed in part to the pre-service orientation and training that they received. In the March, 1984 letter calling for faculty participation, W.A.C. was introduced to the faculty as a response to Curriculum Goal 2, "...to help students achieve reading and writing skills in the English Language." Later, during the summer training program there was ample discussion of student writing skills and presentations of techniques for helping students to write. The faculty members received a number of messages that at least implied, "Be concerned about your students' writing skills." Those messages were apparently not taken lightly.

Recommendation #1a: The W.A.C. program should strengthen its emphasis of "writing to learn". Emphasis of writing to help content learning allows accomplishment and appreciation of success in smaller increments because it focuses on individual content objectives instead of writing proficiency, which is often so elusive for many deaf students and so laborious for instructors to detect and document. With course learning objectives as an emphasis, an instructor is more likely to be able to initiate manageable writing assignments and then reflect on the passing semester and cite explicit learning successes that resulted from the writing assignment(s). The instructor interviews indicated that when faculty members focused on the opportunities to enhance students' grasp of the course content by reacting to the substance of their writing, instead of its grammatical correctness, they found the process stimulating.

Recommendation #1b: The W.A.C. program should clarify how it serves Curriculum Goal 2. It seems paradoxical and is potentially confusing that a program,

touted primarily for its capacity to promote learning of course content, has been adopted to support Goal 2, which emphasizes literacy skill. Though a paradox, this is not a contradiction. The W.A.C. philosophy and Goal 2 are compatible because as individual W.A.C. courses use writing-to-learn, the W.A.C. program can help students learn-to-write better, through a natural approach, without their instructors paying explicit attention to their writing skills.

Arthur Applebee, a respected observer of the writing done in schools, implied the synergistic relationship between writing-to-learn and learning-to-write. He wrote "...the first step in improving the writing of secondary students calls for more situations in which writing serves as a tool for learning rather than as a means to display acquired knowledge." (Applebee, Lehr, and Auten, 1981, p. 81). This synergy should be clarified for future W.A.C. instructors so that they can use writing to advance their course goals while feeling confident that they are also contributing to the achievement of Curriculum Goal 2.

Recommendation #1c: When instructors have a strong desire to focus explicitly on writing skills as well as content learning, they should be advised to confine such assistance to expository skills, avoiding explicit grammar instruction. They should also be warned of the additional effort and expertise needed to guide and monitor development of expository skills.

Observation #2: Instructor frustration became acute when student writing performance dominated the course grade.

Recommendation #2: Instructors should stress to students the importance of the writing assignments but avoid placing disproportionate stress on writing

performance as a determinant of the student's grade in the course. If the writing does contribute to the course grade, students should be allowed to earn points through revisions. Without the opportunity to make revisions student risk-taking will be squelched and the writing will be diluted as a force for exploring and refining knowledge.

Observation #3: A number of instructors were bothered by an uncertainty of whether the writing activities had helped course learning.

Recommendation #3: Instructors should use some evaluation technique such as classroom test questions that specifically measure learning of the objectives or information that is supported by the writing activities. This could be a boost to the instructor's morale as well as an aid for appraising the success of the W.A.C. program.

Observation #4: Several instructors found that their students had initial difficulty completing the writing tasks that were assigned.

Recommendation #4a: Instructors should be ready to guide students' completion of the early assignments, teaching them how to do the assignments initially and perhaps showing examples of successful work by other students.

Recommendation #4b: Instructors should anticipate the need to partition their writing assignments into manageable segments so that the instructor can more frequently monitor and guide progress toward the learning goal.

Recommendation #4c: Recognizing the differences in reading and writing skills among Gallaudet students, the W.A.C. program should begin to identify student background variables (like English Language Program test scores, English grades, and Degrees of Reading Power scores) that will help teachers to better anticipate the range of writing tasks that they might attempt (and avoid) with their students.

Observation #5: Instructors felt that the use of writing entailed an intrusion on their personal schedules. One reported spending an additional four and one-half hours each week on writing-related tasks.

Recommendation #5: If instructor endurance in the W.A.C. movement is to be preserved, it may be necessary to reduce faculty inconvenience by encouraging their selective use of writing assignments, adjusting teaching loads, paying instructors for the additional work, or providing a cadre of skilled readers (and writers) to help in the processing of student papers.

IMPACT OF W.A.C. ON STUDENTS

In addition to suggesting opportunities for making W.A.C. easier to implement and more effective for students, several W.A.C. projects produced data that indicate how students were affected by the writing activities. The sections that follow present student sentiments toward W.A.C, display and discuss their performance on W.A.C. writing assignments, and provide evidence that the writing activities may have helped them to learn course content information.

Where possible the discussion capitalizes on a design recommended by writing researcher, Donald Graves (1981), who suggested combining in-depth data from a single writer with slightly less detailed information from the larger group of writers of which the individual is a member. In the present case, the larger group is composed of the 26 students enrolled in the W.A.C. courses of Dr. Lloyd, Mr. Minter, and Mr. Olson. The single student selected from this group, whom we will call Alicia, was a senior level student from Mr. Olson's Government class. Now graduated from Gallaudet, she had majored in Government, had earned a 2.31 cumulative GPA before starting the W.A.C. course, and had

gotten a C+ when she took English 103 as a freshman. Although she entered Gallaudet as a freshman directly without attending the School of Preparatory Studies, Mr. Olson felt that she had skill limitations that were partial obstacles to her completing the summaries that he assigned in his W.A.C. course. She seemed to be a representative student.

Student Sentiments Toward W.A.C.*

Student sentiments were gathered by questionnaire. Each of the three W.A.C. classes was visited in early December, so that the survey form could be distributed and explained to the students. (A copy of the questionnaire from one of the three classes appears as Appendix A.) Students were given a copy of the questionnaire and an addressed envelope for its return. Each student was promised a letter of commendation when the completed questionnaire was returned. Twenty-four of the 26 students in the three classes responded.

Students responded by expressing agreement or disagreement with an array of statements that referred to the writing assignments they had encountered in the soon-to-be-completed semester. Although the total questionnaire data produced very high instrument reliabilities, our substantive (vs. statistical) purposes are better served by examining responses to selected individual items from the total instrument. Table 2, on the following page, displays the grouped responses of the 24 students.

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* To promote candid responses, all students were assured confidentiality; therefore Alicia's sentiments are not reported separately.

TABLE 2

SENTIMENTS TOWARD WRITING OF STUDENTS
FROM THREE W.A.C. COURSES:
RESPONSES TO SURVEY ITEMS, DECEMBER, 1984

Frequency (and Percentage) of Students (N=24)

Survey Items	Response Choices: Strongly Agree	Agree	Mildly Agree	Mildly Disagree	Disagree	Strongly Disagree	No Response
1. The writing helped my learning in this course.	11 (46%)	12 (50%)	1 (4%)	0	0	0	0
2. The writing improved my English grammar.	4 (17%)	12 (50%)	5 (21%)	1 (4%)	1 (4%)	1 (4%)	0
3. The writing helped me to better organize my ideas.	8 (33%)	15 (63%)	1 (4%)	0	0	0	0
4. The writing helped me prepare for class discussions.	4 (17%)	9 (38%)	8 (33%)	2 (8%)	1 (4%)	0	0
5. The writing was mostly another way for the teacher to give a grade for the course.	3 (13%)	5 (21%)	8 (33%)	5 (21%)	1 (4%)	2 (8%)	0
6. The extra writing assignments have improved my writing skill.	7 (29%)	3 (13%)	8 (33%)	5 (21%)	0	1 (4%)	0
7. The writing has helped me focus on the most important parts of what I read.	9 (38%)	12 (50%)	3 (13%)	0	0	0	0
8. My written assignments improved as time went by this semester.	6 (25%)	11 (46%)	6 (25%)	1 (4%)	0	0	0
9. The writing required too much time.	5 (21%)	7 (29%)	3 (13%)	4 (17%)	4 (17%)	0	1 (4%)
10. The writing took too much study time away from other courses.	2 (8%)	6 (25%)	5 (21%)	5 (21%)	3 (13%)	3 (13%)	0
11. The writing took time away from my study of other things in this course.	2 (8%)	4 (17%)	4 (17%)	7 (29%)	2 (8%)	4 (17%)	1 (4%)
12. This whole process of doing the writing was too difficult for me.	2 (8%)	2 (8%)	4 (17%)	6 (25%)	6 (25%)	3 (13%)	1 (4%)
13. It is useful for me to spend time practicing my writing.	7 (29%)	14 (58%)	2 (8%)	1 (4%)	0	0	0
14. It is important to have good writing skills.	15 (63%)	8 (33%)	1 (4%)	0	0	0	0
15. I would like other teachers to require me to do these kinds of writing assignments.	7 (29%)	3 (13%)	8 (33%)	5 (21%)	0	1 (4%)	0
16. Extra writing assignments do not seem to help my writing skills very much.	1 (4%)	3 (13%)	3 (13%)	4 (17%)	10 (42%)	3 (13%)	0

Responses to Item 1 indicate that all 24 of the students felt that the writing had helped their learning in the course; eleven students (46%) agreed strongly with that statement. There was also strong consensus related to Item 3, "helped me organize ideas," and related to Item 7, "helped me focus on the most important parts of what I read." Several of the other items showed that the students also perceived writing as helpful to other dimensions of their development. Both Item 2, "improved my English grammar," (88% agreement) and Item 6, "improved my writing skill" (75% agreement) reflected favorable perceptions that the writing assignments were leading to greater writing competence. Almost all of the students felt that they were performing better on the particular kinds of writing assignments used in the W.A.C. course (Item 8) by the end of the semester. Regardless of whether the writing activities actually produced these changes in skills, the students seemed to regard the assignments as therapeutic.

In spite of these perceived benefits from the writing, the responses to Items 9 through 12 indicated that the students were definitely jostled, if not jolted, by their instructors' use of writing. The "treatment" did not escape their notice, suggesting that, at least in these three courses, the use of writing was neither nominal nor cosmetic. Sixty-three percent of the students felt that the writing required too much time. Thirteen (54%) felt that the writing diverted energies from study in other courses. One third of the 24 respondents even felt that it limited the time available to study the material of the W.A.C. course. The muffled complaints implied in these responses provide a mild warning against inundating students with writing assignments. Selective use of a few well formulated assignments may be the best approach. The responses to these items also

affirm the candor of these students; the respondents did not seem to seeking the socially acceptable response.

Finally, it is worth noting that students complained of this time infringement even though the writing was integrated as part of their regular course load. What if the writing burdens had been imposed in addition to their course load, for example, as part of an elective skills development progam that did not award credit? It is reasonable to predict that, outside of a course, the burden would have been far more irritating, and the writing, far less frequent.

The last set of Items, 13 through 16, indicates that, however inconvenient these students found the process of using writing so often in a course, it did not seem to sour them on the writing process. Far from it, all 24 acknowledged the importance of having good writing skills. And three-quarters of the students expressed a desire that other teachers would require similar writing assignments. These comments came at the very end of the first semester when student energy was possibly at a low point, making the endorsement of writing even more encouraging.

Student Performance On The W.A.C. Writing Assignments

Alicia's Writing of Summaries

Alicia, a member of Mr. Olson's Government class, monitored Walter Mondale's presidential campaign as it was reported in the Washington Post. On eleven separate occasions she wrote summaries of newspaper articles related to Mondale's pursuit of the presidency. Consistent with his procedures, Mr. Olson appraised each summary using three criteria:

- Content: how well the summary represented the gist of the original newspaper article.

- Organization: how well the information in the summary was arranged in order to make the gist of the original article more understandable to the reader of the summary.
- Mechanics: how well the summary conformed to standard English.

After appraising each summary, he wrote suggestions on how it could be improved and then he returned it to the student. She then had an opportunity to revise it and earn additional points toward her final grade in the course.

The following discussion focuses on Alicia's summaries of two articles. The first was written originally in mid-September, and its revised version was submitted on October 12th. The two versions of this "early" summary appear on page 33 as Figures 1a and 1b. The summaries have been corrected according to the system developed by Crandall (1980) so that the language reflects the intended meaning in standard English. The original Post article, "Candidates Joust" (Taylor, 1984a) describes candidates Bush and Ferraro criticizing each other as well as their presidential opponents.

The second set of summaries was written toward the end of the semester. The original summary of the article, "Mondale's Polls Show Reagan's Lead Widening", (Taylor and Coleman, 1984) was submitted on October 30th, and the revised version was submitted on December 12th. Both versions of this "later" summary appear as Figures 2a and 2b on page 34. A second copy of the four writing samples, 1a through 2b, appears as Appendix B; the reader is encouraged to detach them to facilitate the discussion of the writing samples on the succeeding pages.

Improvements in Summary Writing Performance. Three raters were asked to rank the first drafts of Alicia's "early" and "later" summaries on each of three cri-

Yesterday Walter Mondale, the Democratic Presential nominee, put the finishing touches of his plan to reduce the debt by two-thirds by the fiscal year of 1989.

Vice-Presidential nominee Geraldine Ferraro criticized Reagan's economic policies as "the theory of survival of the richest" and of the deficit, "You can't see it, can't smell it, can't touch it, but you can feel it".

Walter Mondale was in town yesterday meeting with his senior staff and ecomic advisors. They are planning to call for tax increases and budget cuts which would totaly $150 billion to $175 billion in fiscal 1989, the fourth year, which Mondale would b e his second term.

Mr. Mondale has been told by a fellow democrat that he is a nice gentleman but needs to be stronger on his challenger, Reagan. Mostly, this article is full of quotations of critism from each other. Mondale hopes to be more tough and the people will accept his deficit proposal that he feels will make the living standard of our economy comfortable by that time.

a. Draft (submitted 9/17/84)

Yesterday Walter Mondale, Democratic President Nominee, put the finishing touches on his plan to reduce the debt by 2/3 by the fiscal year of 1989. Mondale hopes to be tougher and the people will accept his deficit proposal. His proposal is said to call for tax increases and budget cuts which would totaly $150 billion to $175 billion in fiscal 1989, the fourth year of what Mondale's 2nd term. The proposal was planned by Mondale with his senior advisors and economic advisors. Vice-President Nominee Geraldine Ferraro criticized Reagan's economic policies as the "the only theory of survival of the richest." While Georgs Bush, the Vice-President said that "I think Congress has they have to take a large share of the blame it. I don't say they are solely responsible, but they approiate every single dime don't they...The American people blame the Congress more than they do the President of the United States." Reagan has not yet unveiled his policies and plans for the budget and that brought criticism from the Democrats. This was a move that Mondale made himself appear stronger. His act is beginning to get together.

b. Revision (submitted (10/12/84)

FIGURE 1. Student's Draft and Revised summary written early in fall semester, 1984, showing correction of errors by a rater.

With 11 days left before election, Mondale is grabbing every chance he can get from the election itself. The latest poll shows that Mondale is behind Reagan by 12 points. The campaign strategy committee for Mondale is trying to come up with ideas and plans to add more momentum to the campaign before the election day comes. Mondale is confident and does not let the polls bother him. He said "but...I think the polls are dead wrong. I think we've got an excellent chance of winning. The crowds are enormous." The Mondale staff feels that the response from the crowds are better and stronger every day. Since Mondale's last days of campaigning are near, they are trying to make a large impact on the audience like I said recently about momentum. Today, Mondale campaigned against the foreign policies of Reagan, especially about the Grenada invasion. He criticized the indecency of Reagan's behavior related to the invasion. He says a President should be "a President of all seasons." He says that Reagan sees Uncle Sam as a "kindly old man with a spine of steel," but Mondale wants the image of Uncle Sam as "a mind and a heart and a soul and a conscience." Mondale is attacking Reagan's competence on foreign policy and is giving the audiences ways of how he would've handled the situtation. For Mondale to win, he will have to win the states of Mass, Penn, New York, Wis, and Minn. and a margin from the states like Washington State, and Oregon. Also a clear win in the Mid-West and North East of the country.

a. Draft (submitted 10/30/84)

With the election only 11 days away, the latest polls show that Mondale is behind Reagan by 12 points. Because of that, Mondale is getting every chance he can get. The campaign strategy committee for Mondale is trying to come up with ideas and plans to add more momentum to the campaign before election day. Mondale is confident and does not let the polls bother him. He said "but..I think the polls are dead wrong. I think we've got an excellent chance of winning. The crowds are enormous." The Mondale staff feels that the response from the crowds is getting better and stronger every day. Since Mondale's last days of campaigning are nearing, they are trying to make an impact on the voters audience. Today, Mondale campaigned against the foreign policies of Reagan, especially about the Grenada invasion. He criticized the indecency of Reagan's behavior related to the invasion. He says a President should be a "President of all seasons." He says that Reagan sees Uncle Sam as a "kindly old man with a spine of steel," but Mondale wants the image of an Uncle Sam with "a mind and a heart and a soul and a conscience." Mondale is attacking Reagan's competence in foreign policy and is giving the voters examples of how he would've handled the situtation. For Mondale to win, he will have to win the states of Mass, Penn, New York, Wisconsin, and Minnesota. He also must have a margin from the states like Washington State, and Oregon. He also needs a good clear win in the mid-west and north east of the country.

b. Revision (submitted (12/12/84)

FIGURE 2. Student's Draft and Revised summary written late in fall semester, 1984, showing correction of errors by a rater.

teria: content, organization, which were the same as Mr. Olson's criteria, and also coherence, the extent to which Alicia made smooth transitions from one segment of her passage to the next. Each rater ranked the "later" summary in Figure 2a as superior to the one in Figure 1a according to each of the three criteria. These results are understandable because inspection of Figure 1a shows that Alicia's "early" summary has a number of limitations. First, she devoted an inordinately large portion of her summary to a discussion of Mondale's plan for reducing the deficit, a topic tangential to the article's focus. It wasn't until line 14 that she addressed the primary "jousting" focus of the original Post article. As Mr. Olson advised in his comments to her, the sentence on line 14 would have served her well as a topic sentence for the entire summary.

There are other problems as well. After introducing Mondale's economic planning in the first line, Alicia abruptly shifted to Ferraro's criticism of Reagan in the second sentence, line 4. Then, in the third sentence, (line 8) she made another major shift, returning to Mondale's deficit reduction plans. While the diversity of information in the original Post article may have been partly to blame, Alicia demonstrated blatant incoherence while obscuring the main "jousting" focus of the original article.

The "later" summary in Figure 2a shows summary writing performance that is far superior. Alicia captured Mondale's polling dilemma and his strategic response to it in the first eleven lines. Then she narrowed the field further, briefly presenting his plans for attracting voters and illustrating the strategy by recounting Mondale's criticism of Reagan's commemoration of the Grenada invasion. She concluded the summary appropriately by returning Mondale to the real

world of vote counts by listing the regions in which Mondale needed a plurality in order to win the election.

If these two summaries are even approximations of her summary-writing competence, Alicia had become substantially more skilled between the "early" and "later" compositions. In the interval between the two, she had written or revised eight other summaries and had, therefore, benefitted on eight separate occasions from Mr. Olson's guiding comments and encouragement. She had also become considerably more informed about the Mondale campaign. It should be emphasized that Alicia was not chosen for this analysis because she wrote exemplary summaries; she was selected because she seemed to be an average student, as reflected by her GPA of 2.31 and Mr. Olson's observations of her limited writing skills.

Alicia's Grammatical Performance. Faculty sentiments indicated that students' errors in grammar, spelling, and word choice had had a profound effect on their instructors. It made sense, then, to determine whether writing activities seemed to affect this student's errors. To this end, the errors in Alicia's four summaries were corrected so that they presented the intended meaning in standard English grammar and spelling. Because she was writing a summary instead of an opinion piece it was easier to infer what she was trying to say. This procedure is similar to the correction method developed by Kathleen Crandall of NTID to group students for English instruction.

Table 3, on page 37, summarizes the errors present in Alicia's four summaries; because her summaries were each different lengths, the error frequencies are presented as errors per 100 words. The errors have also been classified into seven

TABLE 3

CONTRASTS OF ONE W.A.C. STUDENT'S GRAMMATICAL PERFORMANCE
ON SUMMARIES OF NEWSPAPER ARTICLES:
ERROR TYPES PER 100 WORDS, FALL, 1984

Contrasts

	A.		B.		C.	
	September-October 30*		Mid-September**		Late October***	
	September First Draft (9/15)	October First Draft (10/30)	First Draft (9/15)	Second Draft (10/12)	First Draft (10/30)	Second Draft (12/12)
1. Punctuation	2.1	.4	2.1	1.2	.4	.4
2. Spelling	4.8	2.7	4.8	2.9	2.7	3.4
3. Articles/ Noun Endings	.5	2.0	.5	2.3	2.0	1.5
4. Verbs: Tense Mood, Aspect	1.6	2.0	1.6	1.7	2.0	1.5
5. Prepositions or Conjunctions	3.2	3.1	3.2	2.3	3.1	2.7
6. Word Choice, Pronoun Reference	3.2	2.0	3.2	1.2	2.0	1.9
7. Major Syntax	1.1	.4	1.1	1.7	.4	0
8. Total Errors #	9.6	9.4	9.6	9.2	9.4	7.6

* Contrasts Draft one of 9/15/84 summary with Draft one of 10/30/84 summary.
** Contrasts Draft one of a summary written 9/15/84 with its revised version, written 10/12/84.
*** Contrasts Draft one of a summary written 10/30/84 with its revised version, written 12/12/84.

\# Total Errors: Does not include Punctuation and Spelling.

different categories, which are similar but not identical to those used at NTID. Spelling errors, which may really have been typographical errors, and punctuation errors which are often less severe, were excluded from an eighth category, Total Errors.

Table 3 displays three contrasts of Alicia's error rates, each allowing inspection of performance differences at two separate times. The first contrast, A, compares her grammatical performance on the first draft of the "Jousting" summary (Figure 1a) written in mid-September with the first draft of the "Mondale Polls Show" summary (Figure 2a) written at the end of October. It was this pair of summaries that suggested such a pronounced improvement in Alicia's expository summary writing competence, as discussed in the preceding section.

Column A does not show a comparable improvement in grammatical performance. Punctuation and spelling error rates did decline. But the kinds of problems more typical of deaf writers, enumerated in categories three through seven, remained rather stable. There were increases in article and noun-ending errors and verb related errors; the error rates related to prepositions and conjunctions remained about the same; and word choice/pronoun reference and syntax error rates declined. The reduction in Total Errors per 100 words, category 8, was .2, a decline of only 2%. This shows that increases in grammatical competence are sometimes subtle and gradual making the process of documenting such changes laborious.

Column B contrasts performance on the first and second drafts of the "Jousting" summary both completed early in the semester. In theory (Bartlett, 1982; Nold, 1981) when a student is revising a draft, rather than creating an original com-

position, it is often easier to detect and correct grammatical errors. The comparison of the two error rates in Column B shows that Alicia had mixed success in reducing her errors in the second version. Punctuation and spelling errors declined as did the rates of errors in categories 5 and 6. There were, however, increases in three other categories, 3, 4 and 7. For the Total Errors category, decline in the error rate between the first and second draft was a modest 4%. Alicia did make some changes for the better but without careful analysis, these would be obscured by her regression to non-standard English in other categories.

Column C presents more promising information and suggests how better understanding of a topic, the ultimate goal of W.A.C., can lead to a students' better control of the language and a reduction of errors. Column C contrasts the error rates of the first and second drafts of the "Mondale Polls.." assignment, the "later" summary in which Alicia demonstrated superior command of the information of the original newspaper article. These data show that the error rates declined for every category except spelling. For Total Errors the decline was from 9.4 to 7.6 errors per 100 words, a reduction of 19%.

Shaughnessy (1977) felt that unskilled writers make errors partly because they do not have a firm grasp of the meaning that they wish to express through their writing. And, since they do not really know what they mean, they are missing a necessary criterion for evaluating whether their prose is faithful to that meaning. Alicia's performance seems to support this theory. Her errors remained relatively undetected while her meaning was still fuzzy, as reflected in the somewhat confused summary of the "Jousting" article. But as her familiarity with the general topic improved, her meaning became more precise, and when she revised her draft, she was more sensitive to her errors. Outcomes like

these in Alicia's work suggest how W.A.C. experiences may eventually lead to better grammatical performance even though its emergence may be gradual and not easy to detect. The value of using bonus points to encourage students to systematically revise their original drafts also seems indicated.

Group Summary Writing Performance

Complementing the detailed analysis of Alicia's summary writing performance are data compiled by Mr. Minter and Mr. Olson during the fall of 1984. Both instructors used summaries in their courses, and both appraised students' summaries according to several similar criteria: content, organization, and mechanics. (Mr. Minter used a fourth criterion, clarity, but it is not discussed here.) By keeping a record of the percentage of the points earned for each criterion on each summary, they made it possible to appraise student progress in each criterion area.

Table 4 displays the scores for each of the 19 students comparing early semester with late semester performance related to each criterion.

TABLE 4

CONTRAST OF EARLY WITH LATE SEMESTER WRITING PERFORMANCE
BY STUDENTS IN TWO W.A.C. COURSES:
PERCENTAGE OF POINTS EARNED ACCORDING TO THREE CRITERIA
FALL, 1984

CRITERIA

Students	A. Content			B. Organization			C. Mechanics		
	Early	Late	Difference	Early	Late	Difference	Early	Late	Difference
Minter 1	63	71	+ 8	65	80	+15	65	75	+10
Minter 2	75	84	+ 9	100	88	-12	100	100	0
Minter 3	70	71	+ 1	50	63	+13	65	50	-15
Minter 4	88	84	- 4	75	100	+25	80	100	+20
Minter 5	95	84	-11	100	100	0	100	100	0
Minter 6	58	78	+20	58	63	+ 5	65	75	+10
Minter 7	54	75	+21	75	63	-12	100	85	-15
Minter 8	58	90	+32	65	88	+23	65	85	+20
Minter 9	58	71	+13	65	63	- 2	80	60	-20
Minter 10	63	75	+12	58	63	+ 5	80	75	- 5
Olson 1	86	86	0	70	80	+10	50	57	+ 7
Olson 2	87	76	-11	72	74	+ 2	33	40	+ 7
Olson 3	100	100	0	94	84	-10	50	57	+ 7
Olson 4	93	100	+ 7	72	84	+12	92	87	- 5
Olson 5	93	86	- 7	80	80	0	100	90	-10
Olson 6	100	96	- 4	66	92	+26	100	90	-10
Olson 7	79	94	+15	90	72	-18	33	40	+ 7
Olson 8	76	90	+14	74	76	+ 2	60	67	+ 7
Olson 9	93	89	- 4	80	92	+12	67	73	+ 7

To produce more stable estimates of performance, the scores for the first third of the semester were averaged producing the "early" scores and those from the final third of the semester were averaged to generate the "late" scores. Each reported score is therefore based on several summaries.

Table 4 shows that 11 of the 19 students had improved their content scores by the final third of the semester. The student identified as Minter 8 demonstrated the largest increase, improving the content score from 58 to 90 of the 100 possible points. Related to organization, 12 of the students improved their scores. Olson 6 made the largest improvement, up 26 points to a score of 92 in the last third of the semester. There also were gains in grammatical performance according to the teachers' rating system as ten of the students were appraised to have better mechanics in the summaries written late in the semester.

There were also 18 instances of declining scores, and these also merit discussion. These findings were not altogether unexpected in light of what is referred to as the "multi-dimensional" nature of the writing process. Writers engaged in the composition process have been characterized by Flower and Hayes (1980) as "jugglers of constraints" because they must rapidly attend to a number of dimensions of their texts. In other words, writers have several jobs to accomplish, almost simultaneously. For Mr. Minter's and Mr. Olson's students, the dimensions of explicit focus were content, organization, and mechanics. In writing every sentence, their students should have addressed ("juggled") each of these dimensions. Composition research (Scardamalia, 1981) shows, however, that writers, especially the inexperienced, can not attend simultaneously to all dimensions of their text. Frequently when one dimension, such as content draws

heavily on a writer's energy, performance related to other dimensions of the text will suffer, at least temporarily.

In most of the cases of score decline in Table 4, it appears that the students had diverted their attention to the improvement of other dimensions of their texts. Minter 2, for example, who exhibits the first decrement appearing in Table 4, may have declined in organization because additional attention had been devoted to enhancement of the content, which apparently benefitted from the additional resources. Mr. Minter may have prompted this shift in attention by awarding relatively low marks in content, early in the semester, while giving high grades for organization. The student's energy would have naturally been drawn toward those dimensions of the writing where there was the largest opportunity for improvement.

Among the 18 instances of reduced scores, this was a common pattern. In 12 of the 18 cases, the students had a relatively high early score in the declining dimension and showed advancement in at least one other dimension by the end of the semester. In three additional cases of score declines, early scores were relatively low, but the student did demonstrate improvements in at least one other dimension. In only three cases of declining scores did students fail to improve on another dimension. One of those students, Minter 5, considered by Mr. Minter his best writer, had limited opportunity to improve because he had achieved maximum scores early in the semester and then maintained them. In the other two cases of declines that were accompanied by no improvement, both relating to Olson 5, it should be noted that the student completed only half of the writing assignments. The 18 declines in scores therefore do not indicate

pervasive losses of real competence. Instead, they show explainable declines in performance, which were probably only temporary in nature.

This discussion indicates the value of inspecting separately how each student performed on all three of the dimensions or criteria. Seventeen of the 19 students advanced on at least one criterion, 12 made advances on at least two, and four students improved on all three. One of the students who did not improve on any of the criteria was again Minter 5, who had little opportunity to improve because of very high early scores. The second who showed no improvement in performance was Olson 5. Mr. Minter and Mr. Olson freely admit that they are still developing their skills for rating summaries. Yet these data provide some evidence that students made advances in their summary writing performance.

Evidence That W.A.C. Produces Learning

Writing is supposed to help learning. The related literature (Newell, 1984; Shanklin, 1981) indicates that the process of writing alerts writers to new data and new relationships within the topic or information that they are writing about. It helps them discover things. Second, in theory, writing encourages students to process new information in a way that aids memory of it at some later time; it helps retrieval. It remained to be seen whether the inaugural W.A.C. projects produced any evidence that writing had helped learning. The discussion that follows addresses this issue by first looking at the group information of Mr. Olson's class and then returning to Alicia's work.

Evidence of Learning from Mr. Olson's Class

During the fall semester in 1984, in addition to assigning writing, Mr. Olson also administered periodic tests. On the tests he included certain items that

directly tapped students' understanding of the campaign themes that had been topics for summary writing. The rest of the test was devoted to other topics related to the course. Table 5 displays test results from the nine students in Mr. Olson's class.

TABLE 5

CONTRAST OF AVERAGE PERFORMANCE ON
TEST ITEMS SUPPORTED BY WRITING ACTIVITIES
WITH TEST ITEMS NOT SUPPORTED BY WRITING:
PERCENTAGE OF POINTS EARNED IN
OLSON W.A.C. COURSE, FALL, 1984 (N=9)

	% of Points Earned On Writing Supported Items	% of Points Earned On Items Not Supported by Writing
Test One	89%	75%
Test Two	87%	80%
Average	88%	77.5%

On the first test, the nine students, on the average, earned 89% of the points available to them on the test item related to their personalized summary theme. On the remaining portions of the test, their average performance was substantially lower: they earned only 75% of the available points, a difference of 14%. On the second test, their personalized summary question average was 87%, still appreciably better than the 80% average on the remaining items. It is also interesting to note, however, that performance on the items not supported by writing seemed to improve (from 75% to 80%) as the class completed more writing assignments. Because each summary was related to the presidential campaign, the central focus of the course, the potential for spill-over was high. These results suggest that Mr. Olson achieved his goal of having each of

his students become versed in a unique aspect of the campaign. The writing activities may have influenced other parts of their learning, as well.

It is significant to note that Mr. Olson had rated five of his nine students as having skill deficiences that presented partial obstacles to completion of the writing assignments. In all of those cases he was concerned about the mechanical kinds of errors that are present in Alicia's sample summaries. These grammatical problems, it would seem, do not automatically prohibit use of writing to promote learning.

Evidence that Alicia Learned from Writing

Alicia's performance data related to the various components of Mr. Olson's test are displayed in Table 6.

TABLE 6

CONTRAST OF ALICIA'S PERFORMANCE ON
TEST ITEMS SUPPORTED BY WRITING ACTIVITIES
WITH TEST ITEMS NOT SUPPORTED BY WRITING:
PERCENTAGE OF POINTS EARNED

	% of Points Earned On Writing Supported Items	% of Points Earned On Items Not Supported by Writing
Test One	85%	79%
Test Two	90%	78%
Average	87.5%	78.5%

These data show that Alica, too, had benefitted from writing the summaries. They suggest that, consistent with the theory of how writing helps learning, she was able to retrieve from her memory the information that she had written about earlier and use it in the test setting.

There are also reasons to believe that Alicia's writing helped her to discover relationships concerning the newspaper information that she was processing and to use the information when it was called for. This evidence comes directly from her writing, itself, in which she demonstrated her new and deeper knowledge by including unexpected information in her summaries. In so doing, she committed what are called miscues.

A miscue is an unexpected performance by a student. Traditionally viewed simply as mistakes, miscues have been used by reading researcher Kenneth Goodman (1969) to get indications of a child's internal, normally unobservable reading strategies. For example, a child might have substituted the word "car" for "cab" when reading aloud the sentence, "He was struck and killed by the speeding cab." Far from lamenting the child's imperfection, Goodman would applaud the child's use of a desirable meaning-based reading strategy.

Alicia's summaries show that use of miscues, as reflections of growing competence, are not confined to reading. Note that Mr. Olson had directed his students to summarize the Post articles as written. They were told to withhold personal opinions and to avoid inserting related information from other sources. After reading her first version of this summary Mr. Olson had written a comment alerting Alicia that "criticism" was a primary focus of the newspaper article. It appears that she understood Mr. Olson's comment, because beginning on line 14, she concluded her revised summary (Figure 1b) with the observation that Reagan had not revealed his budget deficit policy, inertia which provoked Democratic criticism (presumably from Mondale himself because, according to Alicia, the move made Mondale appear stronger.) Alicia had concluded her revised summary by adding another case of criticism.

That concluding segment represents a miscue because the original Washington Post article made no mention whatsoever of Reagan's delay in revealing plans for reducing the deficit. Nor did the article report Mondale making himself appear stronger by criticizing Reagan. But it appears that Alicia did not fabricate the information about Reagan's delay and Mondale's criticism. In two other articles (Taylor, 1984b, 1984c) that she had summarized prior to revising the "Jousting" summary on October 12th, there was explicit mention of Mondale criticizing Reagan for failure to reveal his deficit reduction plans. In one of the articles (Taylor, 1984c), it was reported that Mondale had actually "concocted" Reagan's plan for him. More than being accurate in its own right, Alicia's additional information was unified in important ways with the drift of the original "Jousting" article. Her insert fit into the summary because, like the original article, it addressed criticism among the candidates, cited their attention to the federal deficit, and noted Mondale heeding Tip O'Neill's advice to get tougher with Reagan. The new information did not constitute an anomaly.

Did Alicia sift through other articles to find information that might relate to her "Jousting" summary? Did she intentionally violate Mr. Olson's directive to confine her summary to the facts of the target article? Probably not. This miscue reflects a competence that Alicia was developing relative to the Mondale campaign. Through her writing, she had been processing information more deeply and storing it in a way that was better organized. When an appropriate place to use the stored data presented itsself (to bolster the "Jousting" summary) she retrieved the information from memory, perhaps thinking that it was part of the original article. Though a breach of Mr. Olson's summary-writing protocol, Alicia's miscue is hardly cause for regret.

Like the newspaper reporters who wrote the articles that she summarized, Alicia was becoming an authority on the Mondale campaign. And it was apparently becoming increasingly difficult for her to distinguish between her burgeoning knowledge about the campaign and the information that had appeared in the original article of focus. Moreover, she was not just repeating literal facts; she was discovering new relationships. In her miscue she showed that she had "discovered" that Mondale's sniping at Reagan was a special case of the "jousting" concept presented in the newspaper article. And by referring to Mondale "appearing stronger" she alluded to the causal connection between the forceful posturing of the Democratic candidate and the advice of a leading Democrat, Tip O'Neill.

This was not the only instance of a miscue that reflected Alicia's deepening and well organized pool of knowledge about the Mondale campaign. Another appears in the October 30th summary that is displayed as Figure 2a. On lines 21 through 23 of that summary, Alicia observed that Mondale berated President Reagan's foreign policy competence. In fact, the original "Mondale Polls Show..." article never mentioned foreign policy. Mondale criticized Reagan in the article but it was for his failure to remember the bombing of the Marine barracks in Beirut while commemorating the anniversary of the Grenada invasion. (Both events happened almost simultaneously, according to the article.) These anniversaries did not relate to foreign policy competence but rather to concern for the bereaved families of the dead Marines.

In another article (Coleman, 1984), however, also summarized by Alicia on October 30th, Mondale did chide Reagan for "dump[ing] human rights as a foreign policy priority." The article cited Mondale's "lengthy litany of charges"

related to Reagan's dealings with several foreign governments. Alicia's knowledge of this article, probably more firmly incorporated in her memory because of the summarizing experience, may have "infiltrated" the other October 30th summary. She used the "extraneous" foreign policy information in an appropriate location, where she was developing the theme of Mondale's strategy of narrowing the gap in the polls by accelerating his personal attacks on Reagan.

Another possible source of Alicia's knowledge of Mondale attacking Reagan's foreign policy "compentence" (sic) could have been an October 2nd Washington Post article, entitled "Mondale Challenges Reagan's Competence" on war-and-peace issues. Although a summary of that article did not appear in Alicia's portfolio, the information was available from her reading of the Post. In addition, it was summarized by one of Alicia's classmates, who could have introduced its contents during class discussions. Again, it appears that the relevant information was not concocted by Alicia. It was information that she had learned. Although its use may have reflected some level of infidelity to the "Mondale Polls" article, it does serve as an indicator of Alicia's growing fund of knowledge about the Mondale campaign and her sensitivity to how the daily political skirmishes related to one another.

Mr. Olson's comments about Alicia corroborate these inferences regarding her store of useable information about the election. Having taught Alicia in earlier courses, Mr. Olson noticed a dramatic increase in her participation in class discussions, this past fall. He attributed her new willingness and confidence to her accumulating store of knowledge; in contrast to past courses, she really had something to say about the presidential election.

Principal Observations and Recommendations Related to Implementation

Observation #1: Students felt that the writing activities had helped them to learn course information as well as to improve their writing skills. Even though they felt that the writing assignments had encroached on their study time some what, the students expressed very favorable feelings about the writing process in general. They seemed to perceive the additional work as valuable.

Recommendation #1a: Instructors can use writing activities without necessarily feeling that students' limited writing skills are reflections of either an unwillinghess to use writing or a pessimism regarding their potential to improve their skills.

Recommendation #1b: The data suggest, however, that instructors should use discretion regarding the amount of writing that they assign. In addition, the results imply the prudence of encouraging and managing student writing within courses that award credit.

Observations #2: Inspection of student writing performance, especially the detailed analysis of Alicia's writing, indicated that students can make improvements in the way that they complete certain writing assignments. Grammar performance also improved to some degree but such changes were small and very laborious to document.

Recommendation #2a: Following the lead of Mr. Olson's work with Alicia, it seems to be an effective practice to give students the opportunity to draft and revise writing assignments that contribute to their mastery of important course objectives.

Recommendation #2b: Instructor monitoring and documentation of changes in writing skills should be undertaken only wih special training and with the knowledge that the process is very time consuming.

Observation #3: Alicia and the other students in Mr. Olson's class seem to have enhanced their understanding of the course content through their writing assignments. Although the miscue analysis of Alicia's written work contributed substantially to this observation, similar conclusions can be drawn from inspection of routine classroom examinations.

Recommendation #3a: Instructors should use writing to support key course objectives, those that are central to the purpose of the course.

Recommendation #3b: Instructors should compose classroom examination items or other measues that directly test the course objectives that have been supported by writing assignments.

CONCLUSION

Writing Across the Curriculum has made a contribution to the liberal education of some Gallaudet students, and it has the potential to help more. It appears to be a reasonable course of action for enhancing conventionally taught courses so that literacy is advanced at the same time that students are learning course content. With aggressive self-appraisal, proper management, informed administrative involvement, and expanded faculty participation, W.A.C. may fulfill its initial promise.

Deaf students can make strides when they write to learn. Alicia's work shows that. Encouraged by Mr. Olson's guidance and urged to plow deeply into her topic, she developed an understanding of Walter Mondale's campaign, participated

more confidently in class discussion, improved her summaries, and even demonstrated the capacity to correct some of her own mistakes in grammar. It is tempting to speculate what the results would have been if Alicia had been engaged in writing in more than one course and prior to her final year at Gallaudet.

Her writing also suggests, ironically, that, whatever writing assistance she received before graduating from Gallaudet, it was not enough. She did not appear to be totally literate five months before she departed. Even the revised version of her "late" semester summary in Figure 2b, written just before the end of the first semester, showed that she made many grammatical mistakes and that she may have been misinterpreting parts of what she was reading. When Alicia submitted that summary, she still did not write well, and her reading also may have been suspect.

She was probably not, however, in a worse state than many of her peers. Alicia, while average in many respects at the end of her education, was atypical at that beginning, because she had achieved an extremely high score on the writing sample portion of the Gallaudet entrance examination. A score of 3.5 was then required for direct entry as a freshman; Alicia scored 4.8 out of a possible 5.0. Although she entered Gallaudet with relatively superior skills, she had not achieved mastery of English by the time she left. Sobering by itself, the observation suggests also that other students are considerably worse off than she. Alicia had her first exposure to Writing Across the Curriculum in the first semester of her last year at Gallaudet. Do other students need help earlier than that? Do they need it in more than one course? How do we maximize the invest-

ment of millions committed to the liberal education of these students? How do we finish the job?

Although W.A.C. has had a good beginning at Gallaudet complete satisfaction is not yet warranted. Students do not write-to-learn in a majority of their courses. A number of the seven original W.A.C. instructors have stated informally that they will be using writing again and ten new W.A.C. instructors will each implement a W.A.C. course this fall. Even with these commitments, however, W.A.C. now influences only a small segment of the typical student's academic life.

The pedagogical strategies for using W.A.C. effectively in the Gallaudet classroom are evolving toward refinement. This progress must be accompanied by advances in the strategy for implementing W.A.C. campus-wide. How do we attract a significant number of the faculty? How do we help them after training so that they are not overburdened by the writing to the point that they discard it? How do we encourage them to use writing techniques beyond their inaugural years, after their W.A.C. stipends have stopped? Answers to these questions are urgently needed , suggesting that the formative evaluation of W.A.C. should be continued.

REFERENCES

Applebee, A., Lehr, F., and Auten, A. (1981). "Learning to write in the secondary school: How and where." English Journal, 70, 78-82.

Bartlett, E. (1982). "Learning to revise: Some component processes." In M. Nystrand (Ed.), What writers know: The language, process, and structure of written discourse. New York: Academic Press

Coleman, M. (1984). "Mondale stresses personal credo." The Washington Post, October 30, A6.

Crandall, K. (1980). Written language scoring procedures for grammatical correctness according to reader intelligibility. Rochester, New York: National Technical Institute for the Deaf.

Flower, L. and Hayes, J. (1980). "The dynamics of composing: Making plans and juggling constraints." In Lee Gregg and Erwin Steinberg (Eds.), Cognitive processes in writing. Hillsdale, N.J.: Lawrence Erlbaum.

Goodman, K. (1969). "Analysis of oral reading miscues: Applied psycho-linguistics," Reading Research Quarterly, 5, 2, 9-30.

Graves, D. (1981). "A new look at research on writing." In Shirley Haley-James (Ed.), Perspectives on writing in grades 1-8. Urbana, Illinois: NCTE.

Krashen, S. (1984). Writing: Research, theory, and applications. New York: Pergamon.

Newell, G. (1984). "Learning from writing in two content areas: A case study/protocol analysis." Research in the Teaching of English, Vol. 18, No.3, 265-288.

Nold, E. (1981). "Revising." In Carl Fredericksen and Joseph Dominic (Eds.), Writing: The nature, development and teaching of written communication. Hillsdale, N.J.: Lawrence Erlbaum.

Scardamalia, M. (1981). "How children cope with the cognitive demands of writing." In Carl Fredericksen and Joseph Dominic (Eds.), Writing: The nature, development and teaching of written communication. Hillsdale, N.J.: Lawrence Erlbaum.

Shanklin, N. (1981). Relating reading and writing: Developing a transactional theory of the writing process. Bloomington, Indiana: Indiana University School of Education.

Shaughnessy, M. (1977). Errors and expectations. New York: Oxford University Press.

Smith, F. (1984). "Reading like a writer." Julie M. Jensen (Ed.), Comprehending and composing. Urbana, Illinois: ERIC Clearinghouse on Reading and Communication Skills and National Conference on Research in English.

Taylor, P. (1984a). "Candidates joust over the deficit." The Washington Post, September 9, A1(+).

Taylor, P. (1984b). "Mondale unveils detailed proposal to reduce deficit." The Washington Post, September 11, A1(+).

Taylor, P. (1984c). "Mondale concocts Reagan deficit plan." The Washington Post, September 13, A8.

Taylor, P. and Coleman, M. (1984) "Mondale's polls show Reagan's lead widening." The Washington Post, October 26.

APPENDIX A

APPENDIX A: STUDENT SENTIMENTS QUESTIONNAIRE

Name _____ Date _____

Class: (Check One)
Prep ___
Freshman ___
Sophomore ___
Junior ___
Senior ___

Your academic major _____

Directions: Tell me your agreement or disagreement with each statement by circling one of the six answer choices next to each statement.

SA = Strongly Agree
a = Agree
ma = Mildly Agree
Md = Mildly Disagree
d = Disagree
SD = Strongly Disagree

All of the statements in this section are about the Washington Post newspaper articles that you read and wrote summaries about.

		(Strongly Agree)					(Strongly Disagree)
1.	The Post articles contained too many new words.	SA	a	ma	md	d	SD
2.	Each week the Post ususally contained articles on my topic.	SA	a	ma	md	d	SD
3.	The articles gave me ideas for the 3-5 page paper that I am now writing.	SA	a	ma	md	d	SD
4.	The Post articles were usually too long.	SA	a	ma	md	d	SD
5.	The Post articles were too short.	SA	a	ma	md	d	SD
6.	I did not understand some parts of the Post articles.	SA	a	ma	md	d	SD

Name _____ Date _____

All of the statements in this section are about the three criteria (Content, Organization, and Mechanics) that Mr. Olson used to evaluate your written summaries.

		(Strongly Agree)					(Strongly Disagree)
1.	I did <u>not</u> understand what the criteria meant.	SA	a	ma	md	d	SD
2.	The criteria emphasized what was important.	SA	a	ma	md	d	SD
3.	There were too many criteria.	SA	a	ma	md	d	SD
4.	The criteria were not fair.	SA	a	ma	md	d	SD
5.	I used the criteria to evaluate my own work before giving it to Mr. Olson.	SA	a	ma	md	d	SD
6.	Mr. Olson counted Content as too large a part of my grade for each summary.	SA	a	ma	md	d	SD

Name _____ Date _____

All of the statements in this section are about the comments that Mr. Olson wrote on your papers after he had read and evaluated your summaries.

		(Strongly Agree)					(Strongly Disagree)
1.	Mr. Olson's comments were <u>not</u> specific enough.	SA	a	ma	md	d	SD
2.	Mr. Olson's comments helped me to see what I did well in my summaries.	SA	a	ma	md	d	SD
3.	Mr. Olson's comments focused mainly on my mistakes in English grammar.	SA	a	ma	md	d	SD
4.	Mr. Olson did not write enough comments.	SA	a	ma	md	d	SD
5.	Mr. Olson wrote too many comments.	SA	a	ma	md	d	SD
6.	Mr. Olson's comments gave me ideas on how to improve my writing skills.	SA	a	ma	md	d	SD
7.	Mr. Olson's comments helped me to write better summaries.	SA	a	ma	md	d	SD
8.	I sometimes did not understand Mr. Olson's comments.	SA	a	ma	md	d	SD

Name _____ Date _____

In this course you had an opportunity to revise your original summaries after they had been read by Mr. Olson. Then you gave Mr. Olson a second draft. The statements in this section are about how you felt about revising.

		(Strongly Agree)					(Strongly Disagree)
1.	I usually revised my answers by adding important information that was missing.	SA	a	ma	md	d	SD
2.	I usually revised only what Mr. Olson told me to change.	SA	a	ma	md	d	SD
3.	I made some changes that I decided on by myself.	SA	a	ma	md	d	SD
4.	I prefer to turn in papers to the teacher only once.	SA	a	ma	md	d	SD
5.	Before revising, I had to re-read parts of the Post articles where my understanding was weak.	SA	a	ma	md	d	SD
6.	Revising gave me a better understanding of the campaign material that I had read.	SA	a	ma	md	d	SD
7.	I liked the idea of getting additional points on the second draft.	SA	a	ma	md	d	SD
8.	My revised summaries were usually no better than my original summaries.	SA	a	ma	md	d	SD
9.	I usually revised my summary by reorganizing the information.	SA	a	ma	md	d	SD
10.	I usually revise my own written work in other courses.	SA	a	ma	md	d	SD

11.	I would like it if teachers in other courses would also give me a chance to write a second draft.	SA	a	ma	md	d	SD
12.	I usually revised my summaries by eliminating unnecessary information	SA	a	ma	md	d	SD
13.	I sometimes wasn't sure how to use Mr. Olson's suggestions for changes.	SA	a	ma	md	d	SD
14.	I revised my summaries by telling the same information in a different way.	SA	a	ma	md	d	SD
15.	Revising my summaries was easy for me.	SA	a	ma	md	d	SD
16.	I revised by correcting the grammar of my original summaries.	SA	a	ma	md	d	SD

17. What did you do with your rewritten summaries after Mr. Olson gave them back? _____

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_____

Name _____ Date _____

Your general feelings about writing summaries.

		(Strongly Agree)					(Strongly Disagree)
1.	Writing the summaries helped my learning in this course.	SA	a	ma	md	d	SD
2.	Writing the summaries required too much time.	SA	a	ma	md	d	SD
3.	Writing the summaries improved my English grammar.	SA	a	ma	md	d	SD
4.	It is useful for me to spend time practicing my writing.	SA	a	ma	md	d	SD
5.	Writing the summaries helped me to better organize my ideas in writing.	SA	a	ma	md	d	SD
6.	Mr. Olson gave me enough days to finish each summary.	SA	a	ma	md	d	SD
7.	Writing the summaries took too much study time away from other courses.	SA	a	ma	md	d	SD
8.	Writing the summaries took time away from my study of other things in this course.	SA	a	ma	md	d	SD
9.	Writing the summaries helped me prepare for class discussions.	SA	a	ma	md	d	SD
10.	The summaries were mostly another way for Mr. Olson to give a grade for the course.	SA	a	ma	md	d	SD
11.	It is important to have good writing skills.	SA	a	ma	md	d	SD

Name _____ Date _____

12.	I would like other teachers to require me to write summaries in their courses.	SA	a	ma	md	d	SD
13.	Writing summaries has improved my writing skill.	SA	a	ma	md	d	SD
14.	Writing summaries has helped me focus on the most important parts of what I read.	SA	a	ma	md	d	SD
15.	This whole process of reading articles and writing summaries was too difficult for me.	SA	a	ma	md	d	SD
16.	My summaries improved as time went by this semester.	SA	a	ma	md	d	SD
17.	I would have liked to see more summaries written by Mr. Olson.	SA	a	ma	md	d	SD
18.	I understand how newspaper articles are organized.	SA	a	ma	md	d	SD
19.	Writing summaries helped me prepare for my class presentation.	SA	a	ma	md	d	SD
20.	Extra writing assignments do not seem to help my writing skills very much.	SA	a	ma	md	d	SD

Suggestions for improvements. Write your suggestions to help make writing summaries better activity for students.

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APPENDIX B

Yesterday Walter Mondale, the Democratic Presential nominee, put the finishing touches of his plan to reduce the debt by two-thirds by the fiscal year of 1989.

Vice-Presidential nominee Geraldine Ferraro criticized Reagan's economic policies as "the theory of survival of the richest," and of the deficit, "You can't see it, can't smell it, can't touch it, but you can feel it".

Walter Mondale was in town yesterday meeting with his senior staff and economic advisors. They are planning to call for tax increases and budget cuts which would total $150 billion to $175 billion in fiscal 1989, the fourth year, which Mondale would be a his second term.

Mr. Mondale has been called by a fellow democrat that he is a nice gentleman but needs to be stronger on his challenger, Reagan. Mostly, this article is full of quotations of critics from each other. Mondale hopes to be more tough and the people will accept his deficit proposal that he feels will make the living standard of our economy comfortable by that time.

a. Draft (submitted 9/17/84)

Yesterday Walter Mondale, Democratic Presidential Nominee, put the finishing touches on his plan to reduce the debt by 2/3, by the fiscal year of 1989. Mondale hopes to be tougher and that the people will accept his deficit proposal. His proposal is said to call for tax increases and budget cuts which would total $150 billion to $175 billion in fiscal 1989, the fourth year of what Mondale would be his 2nd term. The proposal was planned by Mondale with his senior advisors and economic advisors. Vice-Presidential Nominee Geraldine Ferraro criticized Reagan's economic policies as the "the only theory of survival of the richest." While George Bush, the Vice-President said that "I think Congress has they have to take a large share of the blame it. I don't say they are solely responsible, but they approiate every single dime don't they...The American people blame the Congress more than they do the President of the United States." Reagan has not yet unveiled his policies and plans for the budget and that brought criticism from the Democrats. This was a move that Mondale made himself appear stronger. His act is beginning to get together.

b. Revision (submitted (10/12/84)

FIGURE 1. Student's Draft and Revised summary written early in fall semester, 1984, showing correction of errors by a

With 11 days left before the election, Mondale is grabbing every chance he can get from the election itself. The latest poll shows that Mondale is behind Reagan by 12 points. The campaign strategy committee for Mondale is trying to come up with ideas and plans to add more momentum to the campaign before the election day comes. Mondale is confident and does not let the polls bother him. He said "but...I think the polls are dead wrong. I think we've got an excellent chance of winning. The crowds are enormous." The Mondale staff feels that the response from the crowds are better and stronger every day. Since Mondale's last days of campaigning are near, they are trying to make a large impact on the audience like I said recently about momentum. Today, Mondale campaigned against the foreign policies of Reagan, especially about the Grenda invasion. He criticized the indecency of Reagan's behavior related to the invasion. He says a President should be "a President for all seasons." He says that Reagan sees Uncle Sam as a "kindly old man with a spine of steel," but Mondale wants the image of an Uncle Sam as "a mind and a heart and a soul and a conscience." Mondale is attacking Reagan's competence on foreign policy and is giving the audiences ways of how he would've handled the situtations. For Mondale to win, he will have to win the states of Mass, Penn, New York, Wis, and Minn. and a margin from the states like Washington State, and Oregon. Also a clear win in the Mid-West and North East of the country.

a. Draft (submitted 10/30/84)

With the election only 11 days away, the latest polls show that Mondale is behind Reagan by 12 points. Because of that, Mondale is getting every chance he can get. The campaign strategy committee for Mondale is trying to come up with ideas and plans to add more momentum to the campaign before election day. Mondale is confident and does not let the polls bother him. He said "but..I think the polls are dead wrong. I think we've got an excellent chance of winning. The crowds are enormous." The Mondale staff feels that the response from the crowds are better and stronger every day. Since Mondale's last days of campaigning are nearing, they are trying to make an impact on the audience. Today, Mondale campaigned against the foreign policies of Reagan, especially about the Grenda invasion. He criticized the indecency of Regan's behavior related to the invasion. He says a President should be a "President for all seasons." He says that Reagan sees Uncle Sam as a "kindly old man with a spine of steel," but Mondale wants the image of an Uncle Sam as "a mind and a heart and a soul and a conscience." Mondale is attacking Reagan's competence on foreign policy and is giving the audiences examples of how he would've handled the situtations. For Mondale to win, he will have to win the states of Mass, Penn, New York, Wisconsin, and Minnesota. He also must have a margin from the states like Washington State, and Oregon. He also needs a good clear win in the mid-west and north east of the country.

b. Revision (submitted (12/12/84)

FIGURE 2. Student's Draft and Revised summary written late in fall semester, 1984, showing correction of errors by a rater.